Possible participation of protein kinase c and cyclic guanosine monophosphate pathway in antinociception of ethanol extract of *Ficus deltoidea* var *angustifolia* leaves in mice

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This study was conducted to evaluate the involvement of protein kinase C (PKC) and cyclic guanosine monophosphate (cGMP) pathway in the antinociception of ethanol extract of *F. deltoidea* (EEFD) leaves. To evaluate the involvement of PKC, the mice were treated with EEFD or acetylsalicylic acid (ASA, 100 mg/kg) 30 minutes before receiving phorbol 12-myristate 13-acetate (PMA, 0.03µg/paw) intraplantarly at the right hind paw. The mice were observed to record the licking and biting the injected paw. To estimate the involvement of cGMP, the mice were divided into four groups (n = 7). Two groups were pre-treated with methylene blue (20 mg/kg) and after 20 minutes, they were given EEFD or vehicle. Another two groups were pre-treated with vehicle 20 minutes before EEFD or vehicle administration. After 30 minutes, induced with 0.6% acetic acid and the number of abdominal writhing was recorded. EEFD produced significant effect of inhibition of abdominal writhing in dose dependent manner. Similarly, administration of EEFD at the similar doses resulted in significantly reduced in nociception induced by intraplantar injection of PMA as it showed reduction in paw licking time. The pre-treatment with methylene blue significantly enhanced the anticoceptive activity of EEFD.The present results suggested that PKC and cGMP pathway possibly inactivated in the antinociceptive action exerted by EEFD.

Keywords: *Ficus deltoidea*, antinociception, PKC, cGMP